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EXAMINER

MATTHEWS, WILLIAM H

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS A. OSBORNE and JASON A. MEAD

Appeal 2009-002753
Application 10/642,513
Technology Center 3700

Decided: October 14, 2009

Before WILLIAM F. PATE, III, MICHAEL W. O'NEILL, and
STEFAN STAICOVICI, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Thomas A. Osborne et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 45, 46, 48-50, 53, 58, and 60-62. Claims 47, 51, 52, 54-57, 59, 63, and 64 have been withdrawn and claims 1-44 have been cancelled. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

THE INVENTION

The Appellants' invention relates to a stent with barbs 314 integral with the stent wire 322, where the barbs are not attached to the stent wire during manufacturing. Spec. 1, ¶ [0005]. That is, the barbs 314 are cut into the stent wire 322 and the wire is bent into a suitable stent wire shape such as to orient the barbs in a desired direction in relation to the longitudinal axis of the final stent shape. Spec. 59, ¶ [0198]; Spec. 61, ¶¶ [0204] and [0205]; and figs. 85 and 86a.

Claim 45 is representative of the claimed invention and reads as follows:

45. A barbed stent for deployment within the body of a patient, comprising:

a wire having at least one integrally formed barb that has not been attached to the wire during the manufacturing process, configured to engage tissue adjacent the stent;

wherein the wire comprises at least one bend connecting to at least two struts such that the at least one barb points in a predetermined direction at an angle relative to a longitudinal axis of the stent, wherein the at least one barb is unbent with respect to the wire and is free of weakening due to bending.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Anderson	US 5,800,526	Sep. 1, 1998
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Appellants seek review of the Examiner's rejection of claims 45, 46, 48-50, 53, 58, and 60-62 under 35 U.S.C. § 102(b) as anticipated by Anderson.

THE ISSUE

Have Appellants shown that the Examiner erred in finding that the barbs of Anderson are unbent with respect to the stent wire? The issue turns on whether the barbs of Anderson are "necessarily" unbent with respect to the stent wire.

SUMMARY OF DECISION

We REVERSE.

PRINCIPLES OF LAW

Anticipation

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros, Inc.. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Inherency

Under principles of inherency, when a reference is silent about an asserted inherent characteristic, it must be clear that the missing descriptive

matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991).

OPINION

Appellants argue that Anderson fails to teach a stent having unbent integral barbs. App. Br. 12. *See also* Reply Br. 2, 3. In response, the Examiner notes that the stent and barbs of Anderson:

. . . are machined from a flat sheet of metal (by laser cutting or chemical etching) such that the barbs will be directed outwardly upon expansion of the stent due to removed material in the area of the barbs (see col. 9 lines 16-26 and 42-50).

Ans. 3. Further, the Examiner points to Figures 4-7 of Anderson to show that because both wire bends 18 and barbs 20 face outwardly, the barbs 20 are not bent with respect to the wire. *Id.* In other words, the Examiner appears to take the position that because material has been removed in areas of the barbs 20, during expansion of stent 10 the wire 18 will bend at these regions such that barbs 20 will be oriented outwardly but will not bend with respect to the stent wire. We disagree with the Examiner's position for the following reasons.

It is our finding that Anderson teaches a stent 10 having a plurality of integral formed barbs 20. Anderson, col. 6, ll. 41-42 and 61-66; and fig. 1. Anderson further teaches using "step etching" in the area of barbs 20 so as to,

. . . remove portions of material so that *the barbs will bend outwardly* when the stent is expanded. In other words, step etching allows for the removal of material in highly selective areas so that upon

radial expansion of the stent, areas having less material will have a tendency to bend or distort, such as with *the barbs bending outwardly* to engage the aortic valve.

Anderson, col. 9, ll. 16-26 (emphasis added).

Hence, Anderson specifically teaches that the barbs 20 bend outwardly when the stent 10 expands radially. However, having the barbs bent outwardly does not mean that the barbs themselves are bent with respect to the wire 18, as Appellants suggest. Likewise, it does not mean that it is the wire 18 that undergoes bending and not the barbs 20, as the Examiner proposes. Hence, in a first instance, we find that both situations are equally probable.

However, inherency may not be established by probabilities or possibilities.

In re Oelrich, 666 F.2d 578, 581 (CCPA 1981) (quoting *Hansgird v.*

Kemmer, 102 F.2d 212, 214 (CCPA 1939). In this case, Anderson also teaches uniform radial expansion of the stent 10 without substantial out-of-plane twisting. Anderson, col. 8, ll. 17-19. Accordingly, if the wire 18 undergoes bending to orient the barbs 20 outwardly, as the Examiner suggests, then the stent 10 will also likely undergo out-of-plane twisting, which is in contrast to Anderson's specific teachings. As such, we agree with Appellants that the barbs 20 of Anderson are not necessarily unbent with respect to the stent wire. *See* Reply Br. 3.

In conclusion, we find that the Examiner has not provided sufficient evidence to support the finding that the barbs 20 of Anderson are necessarily unbent with respect to the stent wire. Accordingly, the rejection of claims 45, 46, 48-50, 53, 58, and 60-62 under 35 U.S.C. § 102(b) as anticipated by Anderson cannot be sustained.

CONCLUSION

Appellants have shown that the Examiner erred in determining that the integral barbs of Anderson are unbent with respect to the stent wire.

DECISION

The Examiner's decision to reject claims 45, 46, 48-50, 53, 58, and 60-62 under 35 U.S.C. § 102(b) as anticipated by Anderson is reversed.

REVERSED

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